



MIAMI-SOUTH FLORIDA

National Weather Service Forecast Office

http://www.weather.gov/miami

Summer 2015 Weather Summary

Wet West and Dry East

September 2, 2015: One of the most variable summers in recent memory ended on Monday, with a sharp difference in rainfall between western and eastern sections of the south Florida peninsula. A few western locations recorded among the wettest summers on record, while in southeast Florida several sites had one of the driest summers on record.

Precipitation

August was somewhat of a recovery month over parts of southeast Florida which had a very dry June and July, but wasn't enough to make a big difference in overall summer rainfall (Figures 3 and 4). The largest precipitation deficits were in Broward and Miami-Dade counties where most locations were 6 to 12 inches below normal, with deficits as high as 16 inches along coastal sections of Broward County. Lesser rainfall deficits of 4 to 6 inches covered most of Palm Beach County, the immediate Lake Okeechobee area and south to central and eastern Collier County. As a result, most of southeast Florida remained in drought conditions through the end of August, a rare occurrence.

Western areas of south Florida from western Glades County south to northwestern Collier County, on the other hand, received above to much above normal rainfall this summer, with some areas of northwestern Hendry County estimated at over a foot above normal.

The prevailing pattern for June and much of July was a high pressure area over the southeast U.S. and western Atlantic which led to east winds and slightly drier air across south Florida. The east winds act to focus the daily showers and thunderstorms to the interior and Gulf coast, leaving the east coast in a drier pattern. For the latter part of

July and most of August, the prevailing winds shifted to a more westerly direction as high pressure weakened. This favored showers and thunderstorms to be more prevalent across the eastern part of the peninsula, especially in Palm Beach County.

Highest measured precipitation amounts across south Florida were:

1. Naples/Golden Gate: 32.60 inches

2. LaBelle: 31.80 inches

3. Ortona: 31.38 inches

4. Muse: 29.63 inches

5. Juno Beach: 27.74 inches

Lowest measured precipitation amounts across south Florida were:

1. Hollywood Waste Water Plant: 6.81 inches

2. Fort Lauderdale Beach: 8.16 inches

3. Pembroke Pines/North Perry Airport: 9.08 inches

4. Cape Florida: 9.19 inches

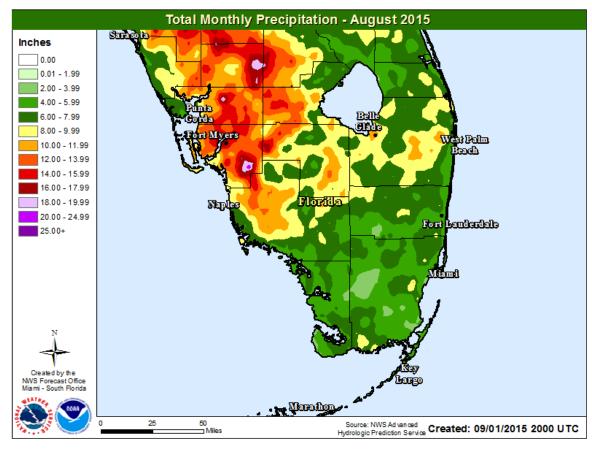
5. Fort Lauderdale/Hollywood International Airport: 9.87 inches

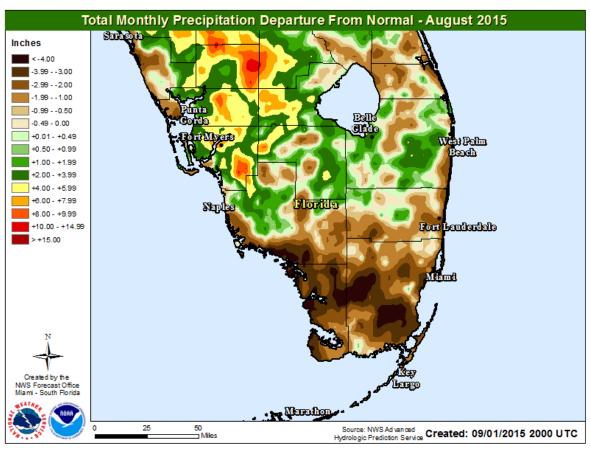
The average of all the reporting stations was 18.68 inches, nearly 8 inches less than last summer.

Below is a table of August rainfall, departure from normal and historical rank, along with a graphical depiction:

Location (Beginning of Period of Record)	August 2015 Rainfall (inches)	August Departure from Normal/Rank
Big Cypress	11.54	
Brighton Reservation (Glades Co.)	8.73	
Cape Florida	9.19	
Canal Point (1941)	10.42	+2.60

Fort Lauderdale/Hollywood Int'l (1912)	5.75	-1.69		
Fort Lauderdale Dixie Water Plant	5.78	-2.22		
Fort Lauderdale Beach	4.73			
Fort Lauderdale Executive Airport	7.48			
Hialeah (1940)	9.05	-0.48		
Hollywood (1963)	3.80	-3.64		
Homestead General Airport (1990)	7.07			
Immokalee (1971)	8.19	+0.36		
Juno Beach	12.01			
LaBelle (1929)	9.75	+1.79		
Marco Island	7.24			
Miami Beach (1928)	6.75	+0.38		
Miami International Airport (1911)	9.02	+0.14		
Moore Haven (1918)	6.29	-1.28		
Muse	12.04			
North Miami Beach	12.71			
Naples East/Golden Gate	11.12			
Naples Municipal Airport (1942)	2.78	-5.80/4 th driest		
NWS Miami	10.94			
Oasis Ranger Station (1979)	7.76	-1.79		
Opa-Locka Airport	8.63			
Ortona (1940)	10.63	+1.66/6 th wettest		
Palm Beach Gardens	7.83			
Palm Beach International Airport (1888)	7.08	-0.87		
Pembroke Pines – North Perry Airport	6.14			
Pompano Beach Airpark	3.78			
Tamiami Airport – West Kendall	7.90			
The Redland (1942)	9.53	-0.17		
South Bay (15S)	7.24			





Below is summer 2015 rainfall, departure from normal and rank for select locations, as well as a graphical depiction:

Location (Beginning of Period of Record)	Summer 2015 Rainfall	Departure from Normal	Summer Rank (Top 30)
Big Cypress - Hendry County	26.25	-1.45	
Brighton Seminole Campground	18.98		
Cape Florida	9.19		
Canal Point (1941)	18.10	-4.13	20 th driest
Ft Lauderdale/Hollywood Int'l Airport (1913)	9.87	-13.71	3 rd driest
Fort Lauderdale Dixie Water Plant	11.94		
Fort Lauderdale Beach	8.16		
Fort Lauderdale Executive Airport	13.61		
Hialeah (1940)	18.28	-10.11	11 th driest
Hollywood (1963)	6.81	-16.77	
Homestead General Airport (1990)	19.48	-5.95	
Immokalee (1970)	20.58	-2.35	
Juno Beach	27.74		
LaBelle (1929)	31.80	+6.93	T-8 th wettest
Marco Island	19.82		
Miami Beach (1927)	13.00	-5.99	28 th driest
Miami International Airport (1911)	18.53	-6.52	
Moore Haven (1918)	19.64	-2.58	
Muse	29.63		
Naples East/Golden Gate	32.60		
Naples Municipal Airport (1942)	19.25	-5.42	19 th driest
North Miami Beach	23.53		
NWS Miami – Sweetwater	19.02		
Oasis Ranger Station (1978)	23.88	-4.19	
Opa-Locka Airport	15.88		
Ortona	31.38	+4.90	7 th wettest
Palm Beach Gardens	19.03		
Palm Beach Int'l Airport (1888)	17.14	-4.87	
Pembroke Pines/North Perry Airport	9.08		

Pompano Beach Airpark	10.02		
Tamiami Airport – West Kendall	17.05		
The Redland - Miami-Dade County (1942)	17.48	-9.09	8 th driest
South Bay/Okeelanta	19.56		

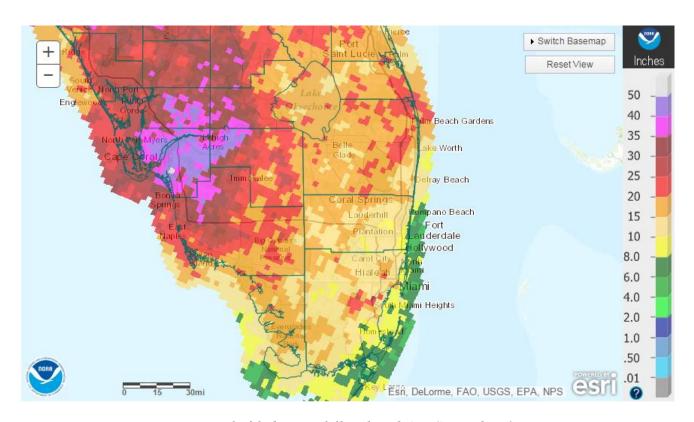


Figure 3: 90-day rainfall ending 8 AM September 1

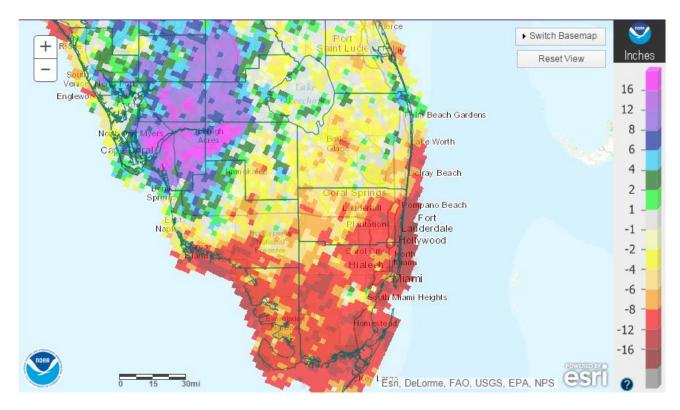


Figure 4: 90-day rainfall departure from normal ending 8 AM September 1

Temperatures

Summer temperatures ended up about one (1) degree above normal in most areas. Due to the low variability in day-to-day summer temperatures across South Florida, even small departures from normal can result in high all-time rankings, as illustrated in the individual station data below. The number of 90+ degree days was above normal at each of the main climate sites and higher than last year. Oasis Ranger Station in far eastern Collier County hit 101 degrees on June 21, the only recording station to reach 100 degrees this summer.

- *Miami International Airport* had an average summer temperature of 84.3 degrees Fahrenheit. This is 0.1 degrees above the 30-year normal and ranks as the 6th warmest summer on record. Miami observed 74 days of temperatures at or above 90 degrees this summer, which is well above the normal total of 39 days. The hottest summer temperature was 96 degrees on July 29th and the coolest was 72 on June 11th.
- *Palm Beach International Airport* had an average summer temperature of 83.0 degrees Fahrenheit. This is 1.3 degrees above the 30-year normal and ranks as the 13th warmest summer on record. West Palm Beach observed 67 days of temperatures at or

above 90 degrees, which is well above the normal total of 41 days. The hottest summer temperature was 96 degrees on July 14th and the coolest was 70 on June 3rd.

- Fort Lauderdale/Hollywood International Airport had an average summer temperature of 84.3 degrees Fahrenheit. This is 0.3 degrees above the 30-year normal, but ranks as the 3rd warmest summer on record. Fort Lauderdale observed 64 days of temperatures at or above 90 degrees, greater than the normal July total of 44 days. The hottest summer temperature was 96 degrees on July 24th and the coolest was 71 on June 2nd.
- *Naples Municipal Airport* had an average summer temperature of 83.2 degrees Fahrenheit. This is 0.9 degrees above the 30-year normal and ranks as the 10th warmest summer on record. Naples observed 70 days of temperatures at or above 90 degrees, above the normal total of 61 days. The hottest summer temperature was 96 degrees on August 29th and the coolest was 69 on June 3rd.

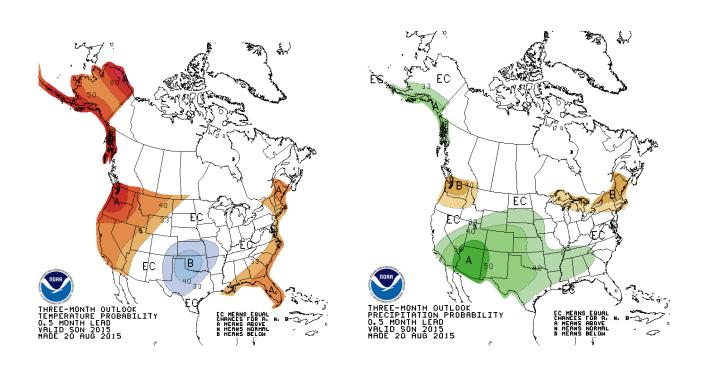
Outlook for September to November

Latest outlooks by the <u>NOAA Climate Prediction Center</u> (CPC, Figures 5 and 6) are for equal chances of above, below and near-normal precipitation for the September to November period. This is the period in which south Florida transitions from the wet season to the dry season, with the median end of the rainy season around October 17th. Predicting this transition period well in advance is quite difficult, with some years experiencing a quick transition of only a few days and others going through a gradual transition spanning a few weeks. This period can be largely influenced by tropical systems during what is typically the most active part of hurricane season.

The CPC outlook for September to November also calls for the likelihood of above normal temperatures. Those looking for relief from the summer-long heat and humidity typically have to wait until early or mid-October for the first noticeable cold front to bring cooler and less humid air into the region, with more substantial cooling into the 50s not until no earlier than late October or early November.

September and October represent the two most hurricane prone months for South Florida. Therefore, it is important that we continue to keep a close eye on the tropics and make sure that our personal hurricane plans are in place for this season.

For the latest south Florida weather information, including the latest watches, advisories and warnings, please visit the National Weather Service Miami Forecast Office's web site at weather.gov/southflorida.



Figures 5 and 6: September-November temperature probability (left) and precipitation probability (right) from NOAA's Climate Prediction Center (CPC).